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96/R/LP/2 Lines and Sowing Dates - Lupins

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96/R/LP/2

LUPINS

LINES AND SOWING DATES

Object: To test the effects of sowing date on the plant architecture and winter survival of lines of autumn-sown lupins - Appletree.

Sponsors: I. Shield, G.F.J. Milford, J.E. Leach.

Design: 3 randomised blocks of 4 x 3 plots, analysed as (2 x 2) + 4.

Plot dimensions: 5.76 x 9.0.

Treatments: All combinations of:-

1. SEED LIN	Line:
70	CH 304/70
73	CH 304/73
DA	Dwarf 1
DB	Dwarf 2
2. SOW DATE	Sowing date:
E	Early 22-Aug-95
M	Middle 07-Sep-95
L	Late 20-Sep-95

For analysis only

3. LATE	SEED LIN	SOW DATE
70	70	L
73	73	L
LDA	DA	L
LDB	DB	L

NOTE: Early and middle sown seed lines CH304/70 and CH304/73 failed and have been omitted from the analysis.

Experimental diary:

- 26-Jul-95 : B : Straw removed.
- 04-Aug-95 : B : Ploughed and furrow pressed, rolled.
- 22-Aug-95 : T : **SOW DATE E:** Cultivated by rotary grubber four times, rotary harrowed. Lines drilled at 42 seeds per m².
- 23-Aug-95 : B : Irrigated 20 mm.
- 24-Aug-95 : T : **SOW DATE E:** Stomp 400 SC at 5.0 l in 220 l. Spannit at 1.5 l in 220 l.
- 29-Aug-95 : B : Irrigated 20 mm.
- 07-Sep-95 : T : **SOW DATE M:** Rotary harrowed. Lines drilled at 42 seeds per m².
- 12-Sep-95 : T : **SOW DATE M:** Stomp 400 SC at 5.0 l in 220 l.
- 20-Sep-95 : T : **SOW DATE L:** Rotary harrowed. Lines drilled at 42 seeds per m².

96/R/LP/2

Experimental diary:

21-Sep-95 : T : SOW DATE L: Stomp 400 SC at 5.0 l in 220 l.
 18-Oct-95 : B : Laser at 0.75 l with Atlas Adjuvant Oil at 1.6 l in 200 l.
 29-Mar-96 : B : Atlas Simazine at 2.3 l in 200 l.
 11-Apr-96 : T : SEED LIN 70 (two plots), 73 (two plots), DA (three plots) and DB (one plot), SOW DATE L: Inter-row sprayed Gramoxone 100 at 4.0 l in 220 l.
 10-Jul-96 : B : Mistral at 1.0 l in 260 l.
 18-Jul-96 : B : Benlate Fungicide at 1.1 kg with Pirimicarb 50 DG at 280 g and Vassgro Spreader at 78 ml in 260 l.
 03-Sep-96 : B : Reglone at 3.0 l in 390 l.
 10-Sep-96 : B : Combine harvested.

Previous crops: W. rape 1994, w. barley 1995.

NOTE: Plant density was monitored from October to April. Dry matter was assessed weekly April to August. Light interception measurements were made twice weekly April to August. Leaf and pod photosynthesis measurements were made frequently. Components of yield were assessed at harvest.

GRAIN TONNES/HECTARE

***** Tables of means *****

SEED LIN	DA	DB	Mean		
SOW DATE					
E	1.60	2.07	1.84		
M	1.47	1.07	1.27		
Mean	1.54	1.57	1.55		
LATE	70	73	LDA	LDB	Mean
	1.62	1.59	2.81	2.52	2.13

Grand mean 1.84

*** Standard errors of differences of means ***

SOW DATE	SEED LIN	SOW DATE SEED LIN & LATE
0.476	0.476	0.674

***** Stratum standard errors and coefficients of variation *****

Stratum	d.f.	s.e.	cv%
BLOCK.WP	14	0.825	44.7
GRAIN MEAN DM% 51.3		PLOT AREA HARVESTED 0.00130	